ABSTRACT

A process for obtaining an object image of at least one object (40) is described, wherein at least two partial images of the object (40) are taken under differing object conditions which are formed on the object with spatial patterns, wherein a non-linear dependence of the light detectable from the object point on the object conditions given at the object point exists and the partial images contain different contributions of various space frequency components of the object structure, and the desired object image is determined from the partial images by reconstruction of the space frequency components. Optical systems for implementing this type of process are also described.